

# **C O N T E N T S**

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**PUNJAB STATE ELECTRICITY REGULATORY COMMISSION  
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**PUNJAB STATE ELECTRICITY REGULATORY COMMISSION  
SCO NO. 220-221, SECTOR-34-A  
CHANDIGARH**

**PETITION NO. 45 OF 2010**

**IN THE MATTER OF:**

**ANNUAL REVENUE REQUIREMENT**

**FILED BY THE PUNJAB STATE TRANSMISSION CORPORATION LIMITED**

**FOR THE FINANCIAL YEAR 2011-12**

**PRESENT** : Ms. Romila Dubey, Chairperson

Er. Virinder Singh, Member

Er. Gurinderjit Singh, Member

Date of Order: May 9, 2011

**ORDER**

The Punjab State Electricity Regulatory Commission (Commission), in exercise of powers vested in it under the Electricity Act, 2003 (Act) passes this order determining the Annual Revenue Requirement (ARR) and Tariff for transmission of electricity by the Punjab State Transmission Corporation Limited (PSTCL) for FY 2011-12. The ARR filed by the PSTCL, facts presented by the PSTCL in its various submissions, objections received by the Commission from consumer organizations and individuals, issues raised by the public in hearings held at Ludhiana, Chandigarh, Jalandhar and Bathinda, the responses of PSTCL to the objections and observations of the

Government of Punjab (GoP) in this respect have been considered. The State Advisory Committee constituted by the Commission under Section 87 of the Act has also been consulted and all other relevant facts and material on record have been perused before passing this Order.

#### **1.1 ARR for FY 2011-12**

PSTCL has filed the ARR Petition for FY 2011-12 on 30.11.2010. PSTCL is one of the 'successor entities' of the erstwhile Punjab State Electricity Board (Board) duly constituted under the Companies Act, 1956, after unbundling of the Board by Government of Punjab vide Notification No. 1/9/08-EB(PR)/196 dated 16.4.2010, under the "Punjab Power Sector Reforms Transfer Scheme" (Transfer Scheme). In the ARR Petition for FY 2011-12, PSTCL has submitted that the Balance Sheet of PSTCL ending March 31, 2009, appended to the Transfer Scheme notified by GoP was provisional and till the date of filing the ARR Petition, GoP had not finalised the transfer of assets and liabilities to successor entities. In the absence of opening balances based on the final notification of GoP, the submission of ARR Petition by PSTCL is based on the provisional figures from April 16, 2010 to September 30, 2010, estimates from October 2010 to March 2011 and projections for FY 2011-12. PSTCL has also submitted that in the event, GoP issues the final Notification for transfer of assets and liabilities to the successor entities during pendency of this Petition, PSTCL shall submit revised figures of ARR and tariff for consideration of the Commission.

The Commission in its previous Tariff Order had observed that the Provisional Balance Sheets of the two successor entities, ending March 31, 2009 as appended to the above mentioned Transfer Scheme showed significant variations when compared to the audited balance sheet of the integrated utility. Therefore, the Commission deemed it proper to rely on the information filed by the erstwhile Board in its ARR petition for FY 2010-11 and not on the Provisional Balance Sheet for the purpose of tariff determination for FY 2010-11. On the same lines, for FY 2011-12 also, the Commission has determined ARR and transmission tariff based on the submissions of PSTCL in its ARR and Tariff Petition for FY 2011-12.

PSTCL has also submitted a prayer for approval of ARR of SLDC amounting to Rs. 26.76 crore for FY 2011-12 and its recovery on monthly basis from

PSPCL. The Commission has examined the prayer of PSTCL in the light of Sections 31(1) and 32 of the Electricity Act, 2003.

The Commission observes that GoP vide its notification dated 16.4.2010 issued the Punjab Power Sector Reforms Transfer Scheme, 2010 and has notified Punjab State Transmission Corporation Ltd. (PSTCL) as the State Transmission Utility (STU). The functions of State Load Despatch Centre (SLDC) have been vested with PSTCL till further orders of GoP.

The Commission also observes that Government of India, Ministry of Power (MoP) had endorsed the recommendations of the Committee on Manpower, Certification and Incentives for System Operation and Ring Fencing Load Despatch Centres constituted to examine the issues for ring fencing of State Load Despatch Centres to ensure their functional autonomy.

Further, PSTCL vide its letter dated March 25, 2011 has informed that Ministry of Power (MoP), while pursuing the implementation of key reform measures to be undertaken by respective States under the modified Mega Power Policy, required the power purchasing States to carry out the reform measures which included ring fencing of SLDC. Further, the State Government has also given an undertaking to implement the ring fencing of SLDC in addition to other distribution reform measures. Keeping in view the requirements of MoP, undertaking given by the State Government and the provisions of the National Electricity Policy, the following steps have been reportedly taken by PSTCL for ring fencing of SLDC:

1. The Work Study Report on Manpower submitted by PwC for PSTCL gives the manpower requirement of SLDC for independent operation within the ambit of PSTCL. The centre will be headed by an officer in the rank of Chief Engineer reporting directly to CMD. The organisation structure of SLDC includes Finance and Accounts cell to be headed by an Accounts Officer to ensure that SLDC operates as a separate accounting unit.
2. Presently, SLDC as a whole is not a separate accounting unit. One accounting unit operates in SLDC which will be adequately organised to bring all the financial transactions including payment of salary of all employees of SLDC to make it a full fledged accounting unit.

3. The ARR Petition for SLDC for FY 2011-12 has been prepared keeping in view its fund requirement including the capital expenditure programme for FY 2011-12.

**In the light of the above, the Commission deems it fit to determine ARR for SLDC separately for FY 2011-12. The Commission also emphasizes the need for ring fencing and independent operation of SLDC.**

On scrutiny of the ARR Petition, it was noticed that the ARR was deficient in some aspects and in its communication of 31.12.2010 the Commission sought further information which was furnished by PSTCL in its letter dated 18.01.2011.

#### **1.2 Invitation of Objections and Public Hearings**

A public notice was published by the PSTCL in The Tribune, The Hindustan Times, Dainik Bhaskar and Daily Ajit on 31.12.2010 and 1.1.2011 inviting objections from the general public on the ARR filed by the PSTCL. Copies of the ARR were made available on the website of the PSTCL and in the office of the Financial Advisor, PSTCL, Thermal Designs Shed No.6, Shakti Vihar, Patiala, Liaison Officer, PSTCL Guest House, near Yadvindra Public School, Phase-8, Mohali and also in the offices of the Chief Engineer/P&M, PSTCL, Ludhiana and Superintending Engineers P&M Circles, Ludhiana, Patiala, Jalandhar, Amritsar and Bhatinda. In the public notice, objectors were advised to file their objections with the Secretary of the Commission upto 31.1.2011 with an advance copy to the PSTCL. The public notice also indicated that after perusing the objections received, the Commission will conduct public hearings on the dates which would be subsequently notified.

The Commission received one written objection by 31.1.2011 and five additional written objections thereafter. The Commission decided to take all these objections into consideration.

Number of objections received from individual consumers, consumer groups, organizations and others are as below:

<b>Sr. No.</b>	<b>Category</b>	<b>No. of Objections</b>
1	Industrial Associations	1
2	Industry	1
3	PSEB Engineers/Employees Associations	2
4	Punjab State Power Corporation Ltd.	1
5	Govt. of Punjab (GoP)	1
	<b>Total</b>	<b>6</b>

The list of objectors is given in **Annexure-I** to this Tariff Order. The PSTCL submitted its comments to all the objections which were made available to the respective objectors.

The Commission decided to hold public hearings at Ludhiana, Chandigarh, Jalandhar and Bathinda. A public notice to this effect was published on 29-31.1.2011 in The Tribune, Indian Express, Times of India, Punjabi Tribune and Dainik Bhaskar informing the objectors, consumers and the general public in this respect as per details hereunder :

<b>Venue</b>	<b>Date &amp; time of public hearing</b>	<b>Category of consumers to be heard</b>
<b>LUDHIANA</b> Circuit House, Ferozepur Road, Ludhiana.	<b>Feb. 10, 2011</b> 11.00 AM to 1.30 PM. (To be continued in the afternoon, if necessary).	All consumers/organizations of the area.
<b>CHANDIGARH</b> Commission office i.e. SCO 220-221, Sector 34- A, Chandigarh.	<b>Feb. 11, 2011</b> 10.30 AM to 1.30 PM	Industry
	3.00 P.M. onwards	Agricultural consumers and their unions.
<b>CHANDIGARH</b> Commission office i.e. SCO 220-221, Sector 34- A, Chandigarh.	<b>Feb. 14, 2011</b> 10.30 AM to 1.30 PM	All consumers except Industry, Agricultural consumers and staff unions of the PSPCL and PSTCL.
	3.00 P.M. onwards	Staff unions of the PSPCL and PSTCL and other Organizations.
<b>JALANDHAR</b> Circuit House, Skylark Chowk, Opp. Skylark Hotel, Jalandhar	<b>Feb. 22, 2011</b> 11.00 AM to 1.30 PM (To be continued in the afternoon, if necessary).	All consumers/organizations of the area.
<b>BATHINDA</b> Circuit House, Civil Lines, Near D.C. residence, Bathinda.	<b>Feb. 25, 2011</b> 11.30 AM to 2.00 PM (To be continued in the afternoon, if necessary).	All consumers/organizations of the area.

Through public notices published in different newspapers, it was intimated that the Commission will conduct a public hearing at Chandigarh on March 11, 2011 in which the PSTCL will reply to written objections of the public and other issues raised during public hearings in addition to presenting its own case.

The public hearings were held as per schedule and objectors, general public and the PSTCL were heard by the Commission. A summary of the issues raised, the response of the PSTCL and the views of the Commission are contained in **Annexure-II** of this Tariff Order.

- 1.3** The Government was approached by the Commission through letter dated 31.12.2010 seeking its views on the ARR to which the Government responded on 19.04.2011. The same has been considered by the Commission.

**1.4 State Advisory Committee**

The State Advisory Committee set up under Section 87 of the Act, discussed the ARR of the PSTCL in a meeting convened for the purpose on 8.03.2011. The minutes of the meeting of the State Advisory Committee are enclosed as **Annexure-III** to this Order.

The Commission has, thus, taken the necessary steps to ensure that the due process, as contemplated under the Act and Regulations framed by the Commission is followed and adequate opportunity given to all stakeholders in presenting their views.

**1.5 Compliance of Directives**

In its previous Tariff Orders, the Commission had issued certain directives to the Board/PSTCL in the public interest. A summary of directives issued along with the comments of the Commission is given in **Annexure-IV** of this Tariff Order.

# Chapter 2

## Review for the Year 2010-11

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### 2.1 Background

The Commission issued the Tariff Order for FY 2010-11 for Punjab State Electricity Board (Board), an integrated utility entrusted with the functions of generation, distribution and transmission. The Tariff Order of the Commission for FY 2010-11 contained its approvals of costs and revenue projections based on the Board's estimates for different items of costs incurred/to be incurred and revenue accrued/likely to accrue during the year. The Board has now been unbundled to form two successor entities i.e. PSPCL and PSTCL. PSPCL has been entrusted with the functions of Generation, Trading and Distribution while PSTCL has been entrusted with the function of Transmission (including State Load Despatch Centre and STU).

Expenditure incurred on account of certain cost items like fuel cost, power purchase cost etc is attributable to PSPCL whereas the other costs like Employee cost, R&M expenses, A&G expenses, Depreciation, Interest and Finance Charges, Return on Equity etc. are expenses incurred by both PSPCL and PSTCL. PSPCL in its ARR Petition for FY 2011-12 has submitted the revised estimates of the costs/expenses and revenue pertaining to generation and distribution functions for FY 2010-11. PSTCL has also submitted costs/expenses and revenue pertaining to transmission function for FY 2010-11 (including SLDC function) in the ARR Petition for FY 2011-12.

The Commission observes that there are differences in certain items of costs between the segregated costs approved by the Commission for transmission business of the erstwhile Board in Tariff Order of FY 2010-11 and the revised estimates now furnished by PSTCL. The Commission considers it appropriate and fair to re-visit and review the approvals granted by it for transmission business of the erstwhile Board in the Tariff Order for FY 2010-11 with reference to the revised estimates now made available by PSTCL but without



altering the principles and norms adopted earlier. These matters are discussed in the ensuing paragraphs.

## 2.2 Transmission System Availability

2.2.1 PSTCL has submitted its transmission system availability for FY 2009-10 and up to November 2010 for FY 2010-11, as shown in Table 2-1 below:

**Table 2.2.1: Transmission System availability of PSTCL**

(In %)

Voltage Level	FY2009-10				FY2010-11		
	Apr-Jun	July-Sep	Oct-Dec	Jan-Mar	Apr-Jun	July-Sep	Oct-Nov
220 kV	99.81	99.91	99.88	99.64	99.83	99.77	99.64
132 kV	99.84	99.57	99.81	99.82	99.88	99.86	99.76

2.2.2 The Commission has taken note of the transmission availability of PSTCL system. However, for the time being the Commission is not stipulating any target availability for the transmission system of PSTCL.

## 2.3 Transmission Loss

2.3.1 PSTCL has submitted that it has made efforts to start energy auditing and calculation of transmission losses at 220 kV and 132 kV levels. However, proper energy accounting is not possible due to non-existence of energy meters on secondary side of 220/66 kV power transformers at some substations. Hence, in order to calculate the transmission losses, PSTCL has taken on record the available authentic energy record compiled by the Punjab State Power Corporation Limited (PSPCL). This data takes into consideration the energy fed to consumers, recorded mainly at 11 kV levels and to other high end consumers at higher voltage levels. Accordingly, based on this data of energy sent out obtained from PSPCL, the transmission losses for FY 2008-09, FY 2009-10 and FY 2010-11 (first quarter) have been worked out, which include losses at 66 kV and 33 kV voltage levels also, which are now part of PSPCL's network. The transmission losses as submitted by PSTCL are shown in Table 2.2 below:

**Table 2.2: Transmission Losses**

<b>Financial Year</b>	<b>Actual Transmission losses</b>
<b>1</b>	<b>2</b>
<b>2008-09</b>	<b>4.59%</b>
<b>2009-10</b>	<b>4.63%</b>
<b>2010-11 (First Quarter)</b>	<b>5.05%</b>

2.3.2 PSTCL, in its reply dated January 18, 2011 to the query raised by the Commission in this regard, has reiterated the same rationale for computing transmission losses including losses at 66 kV and 33 kV. PSTCL has also stated that it is taking all necessary steps to install the energy meters at various 220 kV and 132 kV sub-stations by December 31, 2011, so that transmission losses at these voltage levels could be worked out from FY 2011-12 onwards.

2.3.3 The Commission takes note of the practical difficulties faced by PSTCL for determining transmission losses. However, since the Board has been unbundled into separate entities, it is desirable that losses should be separately approved for these entities. For the purpose of approving the transmission losses for PSTCL, the Commission has undertaken a comparative analysis of similar State Transmission Utilities (STUs) with respect to length of transmission lines, number of sub-stations, transmission capacity, etc. The STUs selected for the purpose are Haryana Vidyut Prasaran Nigam Ltd. (HVPNL), West Bengal State Electricity Transmission Company Ltd. (WBSETCL), and Chhattisgarh State Power Transmission Corporation Ltd. (CSPTCL). The comparison of STUs is shown in Table 2.3 below:

**Table 2.3: Comparison of Transmission Losses of State Transmission Utilities**

<b>Parameters</b>	<b>PSTCL</b>	<b>HVPNL</b>	<b>WBSETCL</b>	<b>CSPTCL</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b><sup>1</sup> Transmission Line Length (Ckt. Km.)</b>				
400 kV	-	154.10	1592.53	277
220 kV	4591	3632.00	2544.83	2375.77
132 kV	3074	3600.50	6626.34	4236.34
66 kV	-	2275.00	496.40	-
<b><sup>1</sup> S/Stn (Nos.)</b>				
400 kV	-	1	2	1

<b>Parameters</b>	<b>PSTCL</b>	<b>HVPNL</b>	<b>WBSETCL</b>	<b>CSPTCL</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
220 kV	52	41	15	12
132 kV	80	152	66	46
66 kV	-	115	10	-
<sup>2</sup> Transmission Capacity (MW)	7790.50	6141.33	4205.42	Information Not Available
<sup>2</sup> Transformation Capacity (MVA)	16915	16086	Information Not Available	7638.5
<sup>2</sup> Intra State Transmission Losses- Approved (%)	Information Not Available	<b>2.10</b>	<b>3.70</b>	<b>4.90</b>

**Note 1: Data for PSTCL and WBSETCL are as on March 31, 2010, for HVPNL as on February 28, 2011 and for CSPTCL as on March 31, 2008.**

**Note 2: Transmission capacity and intra-State transmission losses are approved figures for FY 2010-11.**

**Source: ARR Petition of PSTCL for FY 2011-12,  
Websites of HVPNL, WBSEDCL and CSPTCL,  
Tariff Order for HVPNL for FY 2010-11 dated April 16, 2010,  
Tariff Order for WBSETCL for FY 2008-09 dated September 23, 2008,  
Tariff Order for CSPTCL for FY 2009-10 dated May 30, 2009.**

2.3.4 The Commission observes that the transmission losses approved for different State Transmission Utilities (STUs) vary from 2.1% to 4.9%. It is also acknowledged that losses will be lesser at higher voltages and higher at lower voltages. Transmission losses of 2.1% was approved for Haryana Vidyut Prasaran Nigam Ltd (HVPNL) for FY 2010-11, which has transmission networks at 66 kV also. PSTCL has claimed transmission losses for FY 2008-09, FY 2009-10 and first quarter of FY 2010-11, varying between 4.59% and 5.05%, which includes losses at 66 kV and 33 kV also. Since, PSTCL's transmission network comprises only 132 kV, 220 kV network and 66 kV transformers installed within 132 kV/220 kV sub-stations, the transmission losses at higher voltage levels, i.e., 220 kV and 132 kV networks, will be lower, the Commission decides to provisionally approve transmission losses of 2.50% for PSTCL for FY 2010-11. Taking note of the PSTCL submission that it is taking all the necessary steps to install the energy meters at various 220 kV and 132 kV sub-stations by December 31, 2011, so that transmission losses at these voltage levels could be worked out from FY 2011-12 onwards, the Commission decides that it will

revisit the transmission losses for PSTCL while undertaking true-up exercise for FY 2010-11.

## 2.4 Employee Cost

2.4.1 The Board, in its ARR Petition for FY 2010-11, had projected net employee cost of Rs. 3,566.57 crore for FY 2010-11. The Commission had approved Rs. 2,989.83 crore on this account, after deducting Rs. 100 crore on account of the Board's continuing failure to rationalise manpower expenses. The Commission had also segregated the approved employee cost between different functions of the Board in the Tariff Order for FY 2010-11. The employee cost segregated for transmission business of the Board was Rs. 252.64 crore.

2.4.2 PSTCL has now furnished its estimation of employee cost as Rs. 270.95 crore for FY 2010-11, net of capitalisation of Rs. 53.35 crore. This is inclusive of terminal benefits of Rs. 27.69 crore and Rs. 44.36 crore on account of arrears due to pay revision. Subsequently, PSTCL reported that as per GoP Notification the disbursement on account of arrears of pay would not be made in FY 2010-11 but in FY 2011-12. Hence, the claim of arrears of pay of Rs 44.36 crore in FY 2010-11 stands revised to that extent. The details of the revised employee cost submitted by PSTCL are shown in Table 2.4 below:

**Table 2.4: Employee Expenses estimated by PSTCL for FY 2010-11**

(Rs. crore)

Sr. No.	Particulars	Estimation by PSTCL
	<b>Salaries &amp; Allowances</b>	
1	Basic pay	156.11
2	Dearness allowance	69.15
3	House rent allowance	15.37
4	Fixed medical allowance	2.42
5	Medical reimbursement charges	1.00
6	Over time payment	4.00
7	Other allowances	4.00
8	LODA	0.00
9	Workman Compensation	0.20
10	Bonus	0.00

Sr. No.	Particulars	Estimation by PSTCL
11	<b>Total</b>	<b>252.24</b>
	<b>Terminal Benefits</b>	
12	Leave encashment	9.70
13	Gratuity	14.30
14	Commutation of pension	0.00
15	Ex-gratia	0.00
16	<b>Total</b>	<b>24.00</b>
	<b>Pension Payments</b>	
17	Basic pension	2.49
18	Dearness pension	1.12
19	Dearness allowance	0.00
20	Any other expenses	0.00
21	FMA	0.08
22	<b>Total</b>	<b>3.69</b>
<b>23</b>	<b>Total(10+16+22)</b>	<b>279.94</b>
24	Amount capitalized	53.35
<b>25</b>	<b>Net amount</b>	<b>226.59</b>
26	Add: Prior period expenses	0
27	<b>Grand total</b>	<b>226.59</b>

2.4.3 The provisions of the PSERC Tariff Regulations provide for determination of employee cost in two parts, as under:

- Terminal benefits on actual basis
- Increase in other expenses limited to average increase in WPI

2.4.4 PSTCL has claimed employee cost of Rs 226.59 (revised) crore for FY 2010-11 inclusive of terminal benefits of Rs. 27.69 crore. Since terminal benefits are to be allowed on actual basis as per Regulation 28(8), the Commission allows terminal benefits of Rs. 27.69 crore for FY 2010-11.

2.4.5 PSTCL has claimed Rs. 198.89 Crore as other employee expenses (excluding terminal benefits) in FY 2010-11. As per PSERC Tariff Regulations, increase in 'other employee cost' is to be limited to average increase in WPI. Based on WPI available for 5 months (April 2010 to August 2010), the Commission has calculated the average WPI increase of

7.55%, which is adopted for purposes of calculation of allowable employee cost for FY 2010-11.

2.4.6 The Commission approved other employee expenses of Rs. 1375.93 crore for the erstwhile Board during true up of FY 2009-10. For approving other employee expenses of PSTCL for FY 2010-11, the Commission has bifurcated approved other employee expenses of the Board in proportion to the average number of employees of PSPCL and PSTCL. Thus, the approved 'other employee expenses' for PSTCL for FY 2009-10 work out to Rs.92.05 crore. Applying the WPI of 7.55% to the base figure of Rs. 92.05 crore, the other employee expenses of PSTCL work out to Rs. 99.00 crore. Thus, the Commission approves other employee expenses of Rs. 99.00 crore for PSTCL for FY 2010-11.

2.4.7 Further, the Commission in its Tariff Order for FY 2010-11 had disallowed Rs. 100 crore from approved employee expenses for FY 2010-11 on account of the Board's continuing failure to finalize the study on rationalization of manpower. The Commission observes that this failure continues till date and hence makes a disallowance of Rs. 100 crore on this account. The share of PSTCL out of Rs. 100 crore, in proportion to the number of employees of PSTCL, works out to Rs. 6.69 crore. Thus, the Commission disallows Rs. 6.69 crore from the approved employee expenses for FY 2010-11.

**The Commission, accordingly, approves employee cost of Rs. 120.00 crore (27.69 + 99.00 – 6.69) for FY 2010-11.**

## **2.5 Repair and Maintenance (R&M) Expenses**

2.5.1 The Board, in its ARR Petition for FY 2010-11, had projected net R&M expenses of Rs. 429.24 crore for FY 2010-11, inclusive of Rs. 56.00 crore on account of R&M expenses for additional assets likely to be added during FY 2010-11. The Commission had approved R&M expenses of Rs. 373.24 crore for FY 2010-11, without allowing any R&M expenses for additional assets likely to be added in FY 2010-11. The Commission had also segregated the approved R&M expenses between different functions of the Board in the Tariff Order for FY 2010-11. The R&M expenses segregated for transmission business of the Board was Rs. 41.02 crore.

2.5.2 In the ARR Petition for FY 2011-12, PSTCL has claimed Rs. 52.38 crore (including R&M expense of Rs. 2.74 crore for SLDC for FY 2010-11) as R&M expenses for FY 2010-11. The Commission observes that SLDC is not an independent financial unit in FY 2010-11. Hence, expenditure discussed under various heads includes expenditure on account of SLDC also.

Regulation 28 (4) (a) of the PSERC Tariff Regulations provides for adjusting base O&M expenses in proportion to increase in WPI to determine O&M expenses for subsequent years. Based on the WPI data available for 5 months (April 2010 to August 2010), the Commission has calculated the average WPI increase of 7.55%, which is adopted for purposes of calculation of allowable R&M expenses. The base R&M expenses for FY 2010-11 are Rs. 406.50 (378.16 + 28.34) crore, where Rs. 378.16 crore are the R&M expenses approved for FY 2009-10 and Rs. 28.34 crore are the R&M expenses allowed on fixed assets added during the year. The base R&M expense of Rs. 406.50 crore is bifurcated between PSPCL and PSTCL in the ratio of Gross Fixed Assets (GFA) of PSPCL and PSTCL as on April 1, 2010.

2.5.3 The base R&M expenses for PSTCL work out to Rs. 41.88 crore, after apportioning Rs. 406.50 crore in the ratio of Gross Fixed Assets of PSPCL and PSTCL as on April 1, 2010. Applying the increase in WPI of 7.55%, the R&M expenses for PSTCL for FY 2010-11 work out to Rs. 45.04 crore.

2.5.4 PSTCL has also claimed additional R&M expenses of Rs. 10.91 crore (inclusive of Rs. 0.06 crore on account of SLDC). PSTCL has determined this component by considering asset addition of Rs. 623.73 crore (inclusive of Rs. 0.16 crore pertaining to SLDC) .The Commission restricts the claim of asset addition to Rs 302.03 crore in FY 2010-11, based on the ratio of sum of opening Capital Work in Progress (CWIP) and capital expenditure estimated by PSTCL and approved by the Commission as detailed in para 2.8.2.

As per Regulation 28 (6) of the PSERC Tariff Regulations, R&M expenses are allowable for additional assets added during the year on a pro-rata basis from the date of commissioning of assets. Fixed assets approved to be added during the year are considered as having remained in service of PSTCL for six months on an average during the year. Based on the ratio of approved R&M expenses of Rs. 45.04 crore and opening Gross Fixed Assets of

Rs. 2112.92 crore (which works out to 2.13%), additional R&M expenses of Rs. 3.22 crore are approved for FY 2010-11. Thus, the total allowable R&M expenses for PSTCL for FY 2010-11 work out to Rs. 48.26 crore (45.04 + 3.22).

**Accordingly, the Commission approves Rs. 48.26 crore as R&M expenses for PSTCL for FY 2010-11.**

## **2.6 Administration and General (A&G) Expenses**

2.6.1 The Board, in its ARR Petition for FY 2010-11, had projected A&G expenses of Rs. 79.75 crore for FY 2010-11, net of capitalisation of Rs. 21 crore. The Commission had approved A&G expenses of Rs. 79.75 crore for FY 2010-11 and had also segregated the approved A&G expenses between different functions of the Board in the Tariff Order for FY 2010-11. The A&G expenses for the transmission business of the Board were Rs. 14.48 crore.

2.6.2 In the ARR Petition for FY 2011-12, PSTCL has claimed A&G expenses of Rs. 16.75 crore (net of capitalisation of Rs. 4.64 crore) for FY 2010-11. This is inclusive of Rs 0.81 crore on account of SLDC and Rs. 3.64 crore on account of additional A&G expenses for likely asset addition in FY 2010-11.

2.6.3 Regulation 28 (4)(a) of the PSERC Tariff Regulations provides for adjusting base O&M expenses in proportion to increase in WPI to determine O&M expenses for subsequent years. Based on the WPI data available for 5 months (April 2010 to August 2010), the Commission has calculated the average WPI increase of 7.55% which is adopted for purposes of calculation of allowable A&G expenses. The base A&G expense of Rs. 81.13 crore is bifurcated between PSPCL and PSTCL in the ratio of Gross Fixed Assets (GFA) of PSPCL and PSTCL as on April 1, 2010. Thus, the base A&G expenses for PSTCL work out to Rs. 8.36 crore, after apportioning Rs. 81.13 crore in the ratio of Gross Fixed Assets of PSPCL and PSTCL as on April 1, 2010. Applying the increase in WPI of 7.55%, the A&G expenses for FY 2010-11, work out to Rs. 8.99 crore.

2.6.4 PSTCL has also claimed additional A&G expenses Rs. 3.66 crore (inclusive of Rs. 0.02 crore for SLDC) which has been determined by considering asset addition of Rs. 623.73 crore (inclusive of Rs. 0.16 crore pertaining to SLDC).



The Commission has approved asset addition of Rs. 302.03 crore in FY 2010-11 as discussed in para 2.5.4. Based on the ratio of approved A&G expenses of Rs. 8.99 crore and opening Gross Fixed Assets of Rs. 2,112.92 crore (which works out to 0.43%), additional A&G expenses of Rs. 0.65 crore is approved for FY 2010-11.

**Thus, the total allowable A&G expenses for PSTCL for FY 2010-11 works out to Rs. 9.64 crore (8.99 + 0.65). Accordingly, the Commission approves Rs. 9.64 crore as A&G expenses for PSTCL for FY 2010-11.**

## **2.7 Depreciation Charges**

2.7.1 PSTCL has claimed depreciation charges of Rs. 120.71 crore for FY 2010-11.

The Commission, in its previous Tariff Order for the erstwhile PSEB, had approved depreciation of Rs. 123.07 crore for the transmission business of the Board.

2.7.2 PSTCL has submitted that depreciation rate of last year has been considered for the purpose of computation of depreciation. In the previous Tariff Order, the Commission had approved depreciation for the transmission business of the erstwhile Board, by considering a rate of 4.88%. PSTCL, in its reply dated January 18, 2011, to the query raised by the Commission in this regard, submitted that it has used the same rate of depreciation of 4.88%. However, since PSTCL has also claimed the depreciation for six months on assets added during the year, which was not being claimed during earlier periods, the average rate works out to be 4.97%, which is higher than 4.88%.

PSTCL has applied the depreciation rate of 4.97% on the opening Gross Fixed Assets (GFA) for FY 2010-11 and on the projected asset addition of Rs. 623.73 crore in FY 2010-11, considering that assets will be put to use for six months.

2.7.3 The Commission has determined depreciation charges for PSTCL for FY 2010-11, by applying the depreciation rate derived from the audited accounts of the erstwhile Board for FY 2009-10. The transmission assets of the erstwhile Board as on March 31, 2010 were Rs. 2116.85 crore. However, as per the Audit Note appended to the Audited Accounts, transmission assets were overstated by Rs. 3.93 crore. Thus, the opening Gross Fixed Assets of

PSTCL for FY 2010-11 becomes Rs. 2,112.92 crore. Considering net depreciation of Rs. 98.09 crore (excluding Rs. 0.86 crore on account of capitalisation) for transmission business of the erstwhile Board for FY 2009-10, the average rate of depreciation works out to 4.81%. By applying this depreciation rate of 4.81% to the opening Gross Fixed Assets of PSTCL, the depreciation charges for FY 2010-11 work out to Rs. 101.63 crore. Accordingly, the Commission approves depreciation expenses of Rs. 101.63 crore for FY 2010-11 on asset value of Rs. 2,112.92 crore.

2.7.4 The depreciation approved by the Commission in Tariff Order for FY 2010-11, estimation by PSTCL for FY 2010-11, and depreciation approved by the Commission in this Tariff Order for FY 2011-12, are summarised in Table 2.5 below.

**Table 2.5: Depreciation for PSTCL for FY 2010-11**

Particulars	Approved by the Commission in Tariff Order for FY 2010-11	Estimation by PSTCL for FY 2010-11	Approved by the Commission in Tariff Order for FY 2011-12
1	2	3	4
<b>Depreciation (Rs. crore)</b>	<b>123.07</b>	<b>120.71</b>	<b>101.63</b>

2.7.5 The Commission observes that PSTCL is not maintaining category wise details of fixed assets, as required under The Companies Act, 1956. **The Commission directs PSTCL to maintain category-wise details of assets as per provisions of The Companies Act, 1956.**

## **2.8 Interest Charges**

2.8.1 The Board claimed Interest and Finance charges of Rs. 1,923.01 crore for FY 2010-11 in the ARR Petition for FY 2010-11, against which the Commission approved an amount of Rs. 972.57 crore in the Tariff Order for FY 2010-11. The approved interest and finance charges segregated for transmission business in the Tariff Order for FY 2010-11 was Rs. 110.39 crore. PSTCL has claimed interest charges of Rs. 91.82 crore (net of capitalisation of Rs. 29.88 crore) for FY 2010-11. Besides, interest on working capital of Rs. 21.25 crore (inclusive of Rs. 0.56 crore towards interest on working capital for SLDC) has been claimed by PSTCL for FY 2010-11.

### **2.8.2 Investment Plan**

PSTCL has estimated a capital expenditure of Rs. 843.04 crore for

FY 2010-11. The details of capital expenditure submitted by PSTCL are shown in Table 2.6 below:

**Table 2.6: Capital Expenditure estimated by PSTCL for FY 2010-11**  
(Rs. crore)

Sr. No.	Particular	Funding Requirement for FY 2010-11
1	Transmission Lines & Sub stations	607.78
2	Talwandi Sabo (400 KV) Transmission Lines	235.27
<b>3</b>	<b>Total</b>	<b>843.04</b>

The Commission observes that the total capital expenditure incurred by PSTCL in FY 2010-11 up to January 2011 is Rs. 306 crore. On the basis of capital expenditure actually incurred up to January 2011, the proportionate expenditure for the months of February and March 2011 works out to Rs.61.20 crore. Thus, the capital expenditure in FY 2010-11 is not likely to be more than Rs. 400 crore (approx). Therefore, the Commission approves a capital expenditure of Rs. 400 crore in FY 2010-11. PSTCL has also admitted to a receipt of capital grant of Rs. 1.45 crore for capital works in FY 2010-11. Accordingly, the actual loan requirement for PSTCL for FY 2010-11 excluding capital grant of Rs. 1.45 crore comes to Rs. 398.55 (400 – 1.45) crore.

In the ARR Petition of PSTCL for FY 2011-12, interest on loans availed by PSTCL is depicted as Rs 121.70 crore. This interest is reworked by the Commission on allowable loans (other than WCL and GoP loans) as Rs. 101.56 crore as given in Table 2.7 below.

**Table 2.7: Interest Charges for PSTCL for FY 2010-11**

(Rs. crore)

Sr. No.	Particulars	Loans as on April 1, 2010	Receipt of Loan during FY 2010-11	Repayment of Loan during FY 2010-11	Loans as on March 31, 2011	Amount of Interest
1	2	3	4	5	6	7
1	As per data furnished in ARR (other than WCL)	870.20	801.09	109.64	1561.65	121.70
2	Approved by the Commission (other than WCL)	870.20	398.55	109.64	1159.11	101.56

### 2.8.3 Capitalisation of Interest Charges

The Commission, as per past practice, capitalises the interest excluding interest on working capital, in the ratio of net works in progress to total capital expenditure. Based on this principle, the Commission approves capitalisation of interest of Rs. 4.57 crore for FY 2010-11.

### 2.8.4 Interest on Working Capital

PSTCL has claimed interest on working capital of Rs. 21.25 crore (including interest on working capital of Rs. 0.56 crore for SLDC) for FY 2010-11, as per norms specified in CERC (Terms and Conditions of Tariff) Regulations, 2009. PSTCL has calculated interest on working capital by applying the Short-Term PLR of 11.75% of the State Bank of India as on April 1, 2010 on the working capital requirement of Rs. 176.08 crore.

Regulation 21 of PSERC Tariff Regulations stipulates that while determining the cost of transmission, the Commission shall be guided, as far as feasible, by the principles and methodologies specified by CERC. Accordingly, the Commission has re-calculated the working capital requirement as per norms specified in CERC (Terms and Conditions of Tariff) Regulations, 2009 based on the approved expenses of PSTCL, which works out to Rs. 108.52 crore. By applying the above rate of interest, the Commission approves Rs. 12.75 crore as interest on working capital for PSTCL for FY 2010-11, as shown in Table 2.8:

**Table 2.8: Interest on Working Capital for PSTCL for FY 2010-11  
(Rs. crore)**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Now Approved by the Commission</b>
<b>1</b>	<b>2</b>	<b>3</b>
1	Receivables equivalent to two months of fixed cost	67.00
2	Maintenance spares @ 15% of Operation and Maintenance expenses	26.69
3	Operation and Maintenance expenses for one month	14.83
4	<b>Total Working Capital</b>	<b>108.52</b>
5	Interest Rate	11.75%
6	<b>Interest on Working Capital</b>	<b>12.75</b>

### 2.8.5 Diversion of Capital Funds

The Commission, in para 2.15.7 of Tariff Order for PSPCL for FY 2011-12, has determined the interest expenses of Rs. 240.40 crore to be disallowed for diversion of capital funds towards revenue purposes in FY 2009-10. The Commission retains its decision to make similar disallowance for PSTCL. For FY 2010-11, based on the Gross Fixed Assets of PSTCL and PSPCL as on April 1, 2010, the share of PSTCL out of Rs. 240.40 crore works out to Rs. 24.77 crore. Thus, Rs. 24.77 crore is disallowed from the approved interest charges of PSTCL. Of this amount, Rs. 14.47 crore is to the account of the Government and balance Rs. 10.30 crore is to the account of PSTCL. The approved interest charges for PSTCL for FY 2010-11 are shown in Table 2.9 below:

**Table 2.9: Interest Charges for PSTCL for FY 2010-11**

**(Rs. crore)**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Interest as Claimed by PSTCL</b>	<b>Amount disallowed by the Commission</b>	<b>Amount allowed by the Commission</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Interest on Institutional Loans taken by the erstwhile Board	121.70	20.14	101.56
2	Interest on Working Capital Loans	21.25	8.50	12.75
<b>3</b>	<b>Total (1+2)</b>	<b>142.95</b>	<b>28.64</b>	<b>114.31</b>
4	Less Capitalisation	29.88		4.57
<b>5</b>	<b>Net Interest Charges</b>	<b>113.07</b>		<b>109.74</b>
6	Less: Interest disallowed on account of Diversion of Capital Funds (a) PSTCL – Rs. 10.30 crore (b) GoP – Rs. 14.47 crore			24.77
<b>7</b>	<b>Interest Allowed (5-6)</b>			<b>84.97</b>

**Accordingly, the Commission approves net interest charges of Rs. 84.97 crore for PSTCL for FY 2010-11.**

As stated above, GoP is liable to pay Rs. 14.47 crore to PSTCL on account of diversion of capital funds for revenue purposes for FY 2010-11. This is carried forward to para 3.7.5 of this Tariff Order.

## **2.9 Return on Equity**

PSTCL has claimed RoE of Rs. 77.14 crore at a rate of 15.5% (pre-tax) grossed up to 23.48%, as per provisions of CERC (Terms and Conditions of Tariff) Regulations, 2009. However, the Commission in the past has been allowing the RoE of 14%. The Commission notes that PSTCL has been unable to effect requisite improvements in critical performance parameters. Accordingly, the Commission finds no justification for allowing RoE at a higher rate and thus, allows RoE of Rs. 45.99 crore @ 14% of the total equity of Rs. 328.50 crore of PSTCL.

**Hence, the Commission approves Rs. 45.99 crore as Return on Equity for PSTCL for FY 2010-11.**

## **2.10 Non-Tariff Income**

PSTCL has estimated Non-Tariff Income of Rs. 8.52 crore, inclusive of Rs. 2.15 crore as Non-Tariff Income from SLDC in FY 2010-11. **The Commission accordingly approves Rs. 8.52 crore as Non-Tariff Income of PSTCL for FY 2010-11.**

## **2.11 Annual Revenue Requirement**

The Commission, in its previous Tariff Order, had segregated the ARR of the Board for FY 2010-11 among different functions of the Board along with the consolidated revenue gap of Rs. 1,304.29 crore up to FY 2009-10. PSTCL, in its ARR Petition, has claimed Rs. 59.71 crore as the revenue gap up to FY 2009-10. The Commission has allowed the total gap in the Annual Revenue Requirement of PSPCL after truing up for FY 2009-10, as PSPCL has claimed the truing up for FY 2009-10 in its ARR Petition relying upon judicial precedent. Hence, the Commission has not considered Rs. 59.71 crore of past revenue gap, while determining the Annual Revenue Requirement of PSTCL.

The Summary of the Annual Revenue Requirement of PSTCL for FY 2010-11 is shown in Table 2.10 below:

**Table 2.10: Annual Revenue Requirement for PSTCL for FY 2010-11**

(Rs. crore)

<b>Particulars</b>	<b>Approved by the Commission in Tariff Order for FY 2010-11</b>	<b>Estimation by PSTCL for FY 2010-11</b>	<b>Approved by the Commission in Tariff Order for FY 2011-12</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Employee Cost	252.64	270.95	120.00
R&M Expenses	41.02	52.38	48.26
A&G Expenses	14.48	16.75	9.64
Depreciation	123.07	120.71	101.63
Interest Charges	110.39	113.07	84.97
Return on Equity	45.99	77.14	45.99
<b>Total Revenue Requirement</b>	<b>587.59</b>	<b>650.99</b>	<b>410.49</b>
Less: Non-Tariff Income	0	8.52	8.52
<b>Net Revenue Requirement</b>	<b>587.59</b>	<b>642.48</b>	<b>401.97</b>
Gap/(Surplus) for FY 2009-10	59.71	59.71	0.00
<b>Cumulative Revenue Requirement</b>	<b>647.30</b>	<b>702.19</b>	<b>401.97</b>

Thus, the Commission approves Annual Revenue Requirement of Rs. 401.97 crore for PSTCL in the review for FY 2010-11. This amount is the Transmission charges payable by PSPCL to PSTCL and is treated as a part of the Revenue Requirement of PSPCL. Hence this amount is carried forward to Table 3.17 of PSPCL Tariff Order for FY 2011-12 dated May 9, 2011.

# Chapter 3

## Annual Revenue Requirement for FY 2011-12

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### 3.1 Introduction

PSTCL has projected the Annual Revenue Requirement (ARR) for FY 2011-12, separately for its transmission business and SLDC business. In this Chapter, the Commission has analysed the projections of each item and determined the ARR for FY 2011-12, separately for PSTCL's transmission business and SLDC business. The rationale in this regard has been discussed at length in Chapter-1.

### 3.2 Transmission Loss

3.2.1 PSTCL has projected a transmission loss of 4.5% for FY 2011-12. As discussed in Section 2.3.1 of this Order, PSTCL has submitted that it has not been able to undertake proper energy accounting due to non-existence of energy meters on secondary side of 220/66 kV power transformers at some sub-stations. Hence, in order to calculate the transmission losses, PSTCL has taken into consideration the available authentic energy records compiled by the Punjab State Power Corporation Limited (PSPCL). This energy data takes into consideration the energy fed to consumers, recorded mainly at 11 kV levels and to other high end consumers at higher voltage levels. This implies that losses computed by PSTCL include losses at 66 kV and at 33 kV also, though these assets are owned and managed by PSPCL, as per the provisional Transfer Scheme. The losses so computed by PSTCL for FY 2008-09, FY 2009-10 and the first quarter of FY 2010-11 are 4.59%, 4.63%, and 5.05%, respectively (as shown in Table 2.2).

3.2.2 The Commission takes note of the practical difficulties faced by PSTCL for determining transmission losses. However, since the Board has been unbundled into separate entities, their losses should be separately approved. The Commission has considered transmission losses of 2.5% for FY 2010-11 for PSTCL, after undertaking a comparative study of transmission losses of other State Transmission Utilities (as shown in Table 2.3). Along the same lines, a transmission loss of 2.5% is approved for FY 2011-12 for



transmission network of PSTCL. Taking note of the PSTCL submission that it is taking all the necessary steps to install the energy meters at various 220 kV and 132 kV sub-stations by December 31, 2011, so that transmission losses at these voltage levels could be worked out from FY 2011-12 onwards, the Commission decides that it will revisit the transmission losses for PSTCL while undertaking review of FY 2011-12.

### **3.3 Employee Cost**

3.3.1 PSTCL has projected employee expenses of Rs. 268.31 crore for its transmission business for FY 2011-12 (net of capitalisation of Rs. 63.36 crore), inclusive of Rs. 21.81 crore as pay arrears. While projecting employee expenses, PSTCL has not considered WPI indices. Instead, an overall average increase of 8.79% over employee expenses for FY 2010-11 has been considered for making such projections. PSTCL has submitted that for making projections, the base year expenses of FY 2010-11 were considered exclusive of Rs. 44.36 Crore of pay arrears liability for FY 2010-11.

3.3.2 Similarly, PSTCL has projected employee expenses of Rs. 4.54 crore for its SLDC business for FY 2011-12 (net of capitalisation of Rs. 0.15 crore), inclusive of Rs. 0.37 crore as pay arrears.

3.3.3 PSTCL has submitted that a onetime pay arrears liability of Rs. 44.36 crore has been estimated for FY 2010-11. Further, the second instalment of pay arrears liability is payable in two instalments, i.e., in FY 2011-12 and FY 2012-13 respectively. Therefore, PSTCL has considered only Rs. 22.18 crore (combined for transmission and SLDC business) towards pay arrears liability for FY 2011-12. Subsequently, PSTCL submitted that as per GoP Notification no arrears will be paid in FY 2010-11 and 40% of the total arrears amounting to Rs. 35.49 crore (including SLDC) will be paid in FY 2011-12. Apportioning Rs. 35.49 crore in the ratio of claim of arrears for transmission and SLDC business, the revised claim for transmission business and SLDC business becomes Rs. 34.89 crore and Rs. 0.60 crore respectively. Accordingly the claim of employee cost is revised to Rs. 281.39 crore and Rs. 4.76 crore for transmission and SLDC respectively. The details of the revised employee expenses, as projected by PSTCL are shown in Table 3.1 below:

**Table 3.1: Employee Expenses Projected by PSTCL for FY 2011-12**

(Rs. crore)

Sr. No.	Particulars	Projection for SLDC for FY 2011-12	Projection for PSTCL for FY 2011-12
	<b>Salaries &amp; Allowances</b>		
1	Basic pay	2.509	160.13
2	Dearness allowance	1.154	89.05
3	House rent allowance	0.249	15.58
4	Fixed medical allowance	0.070	2.35
5	Medical reimbursement charges	0.035	0.47
6	Over time payment	0.002	4.40
7	Other allowances	0.175	4.83
8	LODA	0.003	0.00
9	Bonus	0.005	0.00
10	Workman compensation	0.000	0.00
<b>11</b>	<b>Sub-Total</b>	<b>4.202</b>	<b>276.78</b>
	<b>Terminal Benefits</b>		
12	Leave encashment	0.035	8.42
13	Gratuity	0.065	12.94
14	Commutation of pension	0.000	0.00
15	Ex-gratia	0	0.00
<b>16</b>	<b>Sub-Total</b>	<b>0.10</b>	<b>21.36</b>
	<b>Pension Payments</b>		
17	Basic pension	0.005	7.26
18	Dearness pension	0.003	4.14
19	Dearness allowance	0	0.00
20	Any other expenses	0.001	0.00
21	FMA	0	0.07
<b>22</b>	<b>Sub-Total</b>	<b>0.009</b>	<b>11.47</b>
<b>23</b>	<b>Total (10+16+22)</b>	<b>4.314</b>	<b>309.86</b>
24	Amount capitalized	0.150	63.36
<b>25</b>	<b>Net amount (23-24)</b>	<b>4.164</b>	<b>246.50</b>
26	Add: Prior period expenses	0	0

Sr. No.	Particulars	Projection for SLDC for FY 2011-12	Projection for PSTCL for FY 2011-12
27	<b>Grand total (25+26)</b>	<b>4.164</b>	<b>246.50</b>
28	Pay Arrears	0.600	34.89
29	<b>Total (27+28)</b>	<b>4.764</b>	<b>281.39</b>

3.3.4 As per PSERC Tariff Regulations, there is a provision for determination of employee cost in two parts.

- Terminal benefits on actual basis
- Increase in other expenses limited to average increase in WPI

Regulation 28(8) also provides for consideration of any exceptional increase in employee cost on account of pay revision.

3.3.5 As per the projections of PSTCL, the terminal benefits including pension payments for transmission business for FY 2011-12 are Rs. 32.83 crore. Since terminal benefits are to be allowed on actual basis, the Commission allows terminal benefits of Rs. 32.83 crore for transmission business for FY 2011-12. Similarly, terminal benefits of Rs. 0.11 crore have been projected by PSTCL for SLDC business for FY 2011-12. The Commission allows Rs. 0.11 crore as terminal benefits for SLDC business for FY 2011-12.

3.3.6 PSTCL has claimed Rs. 213.67 crore as other employee expenses (excluding terminal benefits, pension payments and arrears due to pay revision) in FY 2011-12 for transmission business. For approving the other employee expenses of SLDC business and transmission business separately, the Commission has bifurcated the other employee expense approved for PSTCL for FY 2010-11 between SLDC and transmission business of PSTCL, in the ratio of average number of employees of SLDC and transmission business, respectively.

3.3.7 The Commission has approved other employee expenses of Rs. 99 crore for PSTCL in FY 2010-11. The approved other employee expenses of SLDC works out to Rs. 2.55 crore after apportioning Rs. 99 crore in proportion to the average number of employees posted in SLDC and transmission business. Similarly, the approved other employee expenses of transmission business works out to Rs. 96.45 crore.

- 3.3.8 The average annual increase in WPI for FY 2011-12 would only be available next year. However, it is the normal practice to apply annual average increase in WPI of the previous year, for projecting the expenses for the ensuing year. The Commission has been applying WPI base of 1993-94 in the past. However, the latest WPI with base of 2004-05 has now been stabilised and is available till February 2011. The Commission has decided to apply this latest base for allowing annual WPI increase for FY 2011-12. Based on the WPI indices available for 11 months (April 2010 to February 2011), the Commission has calculated the average annual increase in WPI of 8.91%. By applying this WPI increase to the base figure of Rs. 96.45 crore, the other employee expense for transmission business for FY 2011-12 works out to Rs. 105.04 crore. Similarly, by applying 8.91% to the base figure of Rs. 2.55 crore for SLDC, the other employee expense for SLDC for FY 2011-12 works out to Rs. 2.78 crore.
- 3.3.9 In the ARR Petition for FY 2011-12, PSTCL has originally claimed Rs. 21.81 crore and Rs. 0.37 crore as arrears due to pay revision for FY 2011-12 for transmission and SLDC business respectively. Subsequently, consequent upon GoP's notification, the amount of arrears payable in FY 2011-12 is Rs. 35.49 crore. Apportioning Rs. 35.49 crore in the ratio of claim of arrears for transmission and SLDC business, the revised claim for transmission business and SLDC business becomes Rs. 34.89 crore and Rs. 0.60 crore respectively. The Commission in its previous Tariff Order had approved this component of employee expenses after reducing it by 28.48%. For determining this figure of 28.48%, the Commission had considered the employee cost claimed by the erstwhile Board for FY 2007-08, FY 2008-09 and FY 2009-10 (projections) and the cost allowed by the Commission in those years. It was observed that on an average for all three years the employee cost allowed by the Commission was 28.48% lower than the amount claimed by the Board. Applying the same principle here, the Commission approves Rs. 24.95 crore for transmission business and Rs. 0.43 crore for SLDC business towards pay arrears for FY 2011-12, after reducing the same by 28.48%.

**The Commission thus approves employee cost of Rs. 162.82 crore (32.83 + 105.04 + 24.95) for transmission business and Rs. 3.32 crore (0.11 + 2.78 + 0.43) for SLDC business of PSTCL for FY 2011-12.**

**3.3.10 In the Tariff Order for FY 2010-11, the Commission had directed the successor entities of PSEB to ensure that the Work Study Report on Manpower is completed and the action plan in the light of its findings finalised by 31.03.2011. However, till date the Study Report has not been finalised. The Commission has disallowed an amount of Rs. 6.69 crore on account of PSTCL's continuing failure to finalise the study on rationalisation of manpower in para 2.4.7 of the Tariff Order. The Commission directs PSTCL to finalise the Work Study Report on Manpower and submit implementation Action Plan to the Commission.**

### **3.4 Repair and Maintenance (R&M) Expenses**

3.4.1 PSTCL has projected R&M expenses of Rs. 97.15 crore for its transmission business and Rs. 4.86 crore for its SLDC business for FY 2011-12. PSTCL has submitted that it has not considered increase in WPI for projecting R&M expenses. Instead, it has projected the R&M expenses for FY 2011-12 keeping in view the expenditure to be incurred on the replacement and maintenance of the equipment, the normal wear and tear as per past record and as per recommendations of the manufacturer/supplier. It has also taken the recommendations of Northern Regional Power Committee (NRPC) into consideration. It also submitted that while allowance of such expenditure based on increase in WPI indices may cover part of such expenses, the same may not be able to address the other factors leading to increase in the overall quantum of R&M expenses.

3.4.2 Regulation 28(4)(b) of the PSERC Tariff Regulations provides for adjusting the base O&M expenses (which includes R&M expenses) in proportion to the increase in WPI. The base R&M expense of Rs. 51.48 crore (Rs. 48.26 crore as approved R&M expenses for PSTCL for FY 2010-11 and Rs. 3.22 crore being R&M expenses allowed on approved asset addition during the year) has been considered for allowing R&M expenses for FY 2011-12. The base R&M expenses for transmission business and SLDC business of PSTCL work out to Rs. 51.32 crore and Rs. 0.16 crore, respectively, after apportioning Rs. 51.48 crore in the ratio of approved Gross Fixed Assets of transmission business and SLDC business of PSTCL, respectively, as on April 1, 2011. Applying the increase of 8.91% in WPI, the R&M expenses for transmission business and SLDC business of PSTCL for FY 2011-12 work out to Rs. 55.89 crore and Rs. 0.17 crore respectively.

3.4.3 As regards claim of Rs. 16.39 crore of PSTCL towards R&M expenses for additional assets of Rs. 621.86 crore likely to be added during FY 2011-12 for transmission business and of Rs. 2.10 crore towards R&M expenses for additional assets of Rs. 5.76 crore likely to be added during FY 2011-12 for SLDC business in terms of the PSERC Tariff Regulations, the Commission is of the view that the increase in R&M expenses demanded on this account cannot be allowed at this stage and will be considered at the time of review next year.

**Accordingly, the Commission approves Rs. 55.89 crore and Rs. 0.17 crore as R&M expenses for transmission and SLDC business of PSTCL respectively.**

### **3.5 Administration and General (A&G) Expenses**

3.5.1 PSTCL has projected A&G expenses of Rs. 21.44 crore for its transmission business and Rs. 5.43 crore for its SLDC business for FY 2011-12. PSTCL has submitted that it has not considered increase in WPI for projecting A&G expenses, as these expenses are incidental towards governing the entire transmission system in the State.

3.5.2 Regulation 28(4)(b) of the PSERC Tariff Regulations provides for adjusting the base O&M expenses (which includes A&G expenses) in proportion to the increase in WPI. The base A&G expense of Rs. 10.29 crore (Rs. 9.64 crore as approved A&G expenses for PSTCL for FY 2010-11 and Rs. 0.65 crore being A&G expenses allowed on approved asset additions during the year) has been considered for allowing R&M expenses for FY 2011-12. The base A&G expenses for transmission business and SLDC business of PSTCL work out to Rs. 10.26 crore and Rs. 0.03 crore respectively, after apportioning Rs. 10.29 crore in the ratio of approved Gross Fixed Assets of transmission business and SLDC business of PSTCL as on April 1, 2011. Applying the increase in WPI of 8.91%, the A&G expenses for transmission business and SLDC business of PSTCL for FY 2011-12 works out to Rs. 11.17 crore and Rs. 0.033 crore respectively.

3.5.3 As regards claim of Rs. 4.37 crore of PSTCL towards A&G expenses for additional assets of Rs. 621.86 crore likely to be added during FY 2011-12 for transmission business and of Rs. 0.63 crore towards R&M expenses for

additional assets of Rs. 5.76 crore likely to be added during FY 2011-12 for SLDC business in terms of the PSERC Tariff Regulations, the Commission is of the view that the increase in R&M expenses demanded on this account cannot be allowed at this stage and will be considered at the time of review next year.

**Accordingly, the Commission approves Rs. 11.17 crore and Rs. 0.033 crore as A&G expenses for transmission and SLDC business of PSTCL, respectively.**

### **3.6 Depreciation Charges**

3.6.1 PSTCL has claimed depreciation charges of Rs. 151.80 crore for transmission business and Rs. 0.67 crore for SLDC business for FY 2011-12.

3.6.2 PSTCL has applied depreciation rate of 4.97% on the opening Gross Fixed Assets of Rs. 2,740.58 crore for FY 2011-12 and on the projected asset addition of Rs. 627.61 crore in FY 2011-12, considering that assets will be put to use for six months, to arrive at the depreciation of Rs. 151.80 crore. The Commission observes that PSTCL has determined depreciation on the entire assets (for both transmission and SLDC business) and has claimed the same against the transmission business only. Depreciation charges for SLDC business has also been claimed separately, by applying CERC depreciation rates to the class of assets belonging to SLDC business. Thus, there is double counting to this extent.

3.6.3 For determining the depreciation charges for PSTCL for FY 2010-11, the Commission has applied a depreciation rate of 4.81%, which was derived from the audited accounts of the erstwhile Board, as stated in para 2.7.3. By applying this depreciation rate on the approved opening Gross Fixed Assets of Rs. 2407.48 crore for transmission business, the depreciation charges for FY 2011-12 work out to Rs. 115.8 crore. Hence, the Commission approves depreciation expenses of Rs. 115.8 crore for transmission business of PSTCL for FY 2011-12.

The Commission has approved the opening Gross Fixed Assets of Rs. 7.47 crore for SLDC business for FY 2011-12. Applying the CERC depreciation rates to approved opening Gross Fixed Assets of Rs. 7.47 crore, the

depreciation charges work out to Rs. 0.37 crore. The approved depreciation for SLDC business of PSTCL for FY 2011-12 is shown in Table 3.2 below:

**Table 3.2 : Depreciation Charges for SLDC Business of PSTCL for FY 2011-12**

Particulars	Approved Gross Fixed Assets as on April 01, 2011 (Rs. crore)	Rate of Depreciation (%)	Depreciation (Rs. crore)
1	2	3	4
Land & Land rights	0.0	0.00%	0.00
Building and Civil Works	1.97	3.34%	0.07
Plant & Machinery	5.17	5.28%	0.27
Line Cable Networks etc.	0.00	5.28%	0.00
Computer accessories	0.08	6.33%	0.01
Meters	0	5.28%	0.00
Vehicles	0	9.50%	0.00
Furniture-fixtures & Office Equipments	0.25	6.33%	0.02
<b>Total</b>	<b>7.47</b>		<b>0.37</b>

3.6.4 Accordingly, the Commission approves depreciation charges for Transmission and SLDC business of PSTCL as shown in Table 3.3 below:

**Table 3.3 : Depreciation Charges for PSTCL & SLDC for FY 2011-12 (Rs. crore)**

Particulars	For SLDC		For Transmission	
	Projection by PSTCL for FY 2011-12	Approved in Tariff Order for FY 2011-12	Projection by PSTCL for FY 2011-12	Approved in Tariff Order for FY 2011-12
1	2	3	4	5
<b>Depreciation</b>	<b>0.67</b>	<b>0.37</b>	<b>151.80</b>	<b>115.80</b>

### 3.7 Interest Charges

3.7.1 PSTCL has claimed interest charges of Rs. 138.04 crore (net of capitalisation of Rs. 35.57 crore) for transmission business for FY 2011-12. Similarly, PSTCL has claimed interest charges of Rs. 0.33 crore, without any capitalisation for SLDC business for FY 2011-12. PSTCL has also claimed Rs. 25.07 crore and Rs. 0.93 crore as interest on working capital for transmission business and SLDC business of PSTCL respectively, for FY 2011-12.



### 3.7.2 Investment Plan

PSTCL has estimated a capital expenditure of Rs. 1,367.44 crore for FY 2011-12. The details of capital expenditure projected by PSTCL are shown in Table 3.4 below:

**Table 3.4: Capital Expenditure estimated by PSTCL for FY 2011-12**

(Rs. crore)

<b>Sr. No.</b>	<b>Particulars</b>	<b>Funding Requirement for FY 2011-12</b>
<b>1</b>	<b>2</b>	<b>3</b>
1	Transmission Lines & Sub stations	627.62
2	Talwandi Sabo (400 KV) Transmission Lines	549.92
3	Rajpura (400 KV) Transmission Lines	189.90
<b>4</b>	<b>Total</b>	<b>1367.44</b>

The Commission observes that PSTCL has proposed an ambitious investment plan for its transmission business for FY 2011-12. As stated in para 2.8.2, the Commission has approved an investment plan of Rs. 400 crore for FY 2010-11, based on the actual capital expenditure by PSTCL up to January 2011, while PSTCL has estimated it to be Rs. 843.04 crore. Therefore, the proposed investment of Rs. 1367.44 crore by PSTCL for transmission business in FY 2011-12 appears to be on the higher side. The Commission at this stage approves an investment plan of Rs. 600 crore for PSTCL for FY 2011-12. Increase in capital expenditure, if any will be considered by the Commission during review of FY 2011-12.

In the ARR Petition, PSTCL has not projected any capital grant for capital works in FY 2011-12. Considering the approved capital expenditure of Rs. 600 crore, the loan requirement works out to Rs. 600 crore.

Thus, interest on allowable loans (other than working capital loans) for transmission business works out to Rs. 113.40 crore, as given in Table 3.5 below.

**Table 3.5: Interest Charges (other than WCL) for Transmission Business of PSTCL**

(Rs. crore)						
Sr. No.	Particulars	Loans as on April 1, 2011	Receipt of Loan during FY 2011-12	Repayment of Loan during FY 2011-12	Loans as on March 31, 2012	Amount of Interest
1	2	3	4	5	6	7
1	As per data furnished in ARR (other than WCL)	1561.65	1270.29	139.59	2692.35	173.61
2	Approved by the Commission (other than WCL)	1159.11	600.00	139.59	1619.52	113.40

PSTCL has also proposed an ambitious investment plan of Rs. 56.66 crore for SLDC business for FY 2011-12. PSTCL has submitted that to provide grid visibility to operators at Punjab SLDC under PSTCL, a SCADA/ EMS (Supervisory Control and Data Acquisition/ Energy Management System) system was commissioned by PGCIL (Power Grid Corporation India Ltd.) since August 2002, under ULDC (Unified Load Dispatch and Communication) Scheme in NR (Northern Regional) Grid. Over the period of time while operating the SCADA/ EMS scheme, it has been felt that the present system as implemented is more suitable for RLDCs with limited benefits for SLDCs, since transmission is primarily at 66 kV level for State networks. Keeping this in view, all the constituents of ULDC scheme in NR are planning to have latest systems by expanding the existing systems for better visibility of operations of grid. For this purpose, PSTCL has proposed an integrated SCADA/EMS scheme at an estimated cost of Rs. 90 crore, out of which Rs. 50 crore is proposed to be spent in FY 2011-12. However, in its letter dated March 28, 2011, PSTCL submitted a revised capital plan of Rs. 30 crore for FY 2011-12. Keeping in view the necessity of capital expenditure of SLDC for efficient operation and better visibility of grid, the Commission at this stage approves an investment plan of Rs. 25 crore for SLDC business for FY 2011-12. Increase in capital expenditure if any, will be considered by the Commission during review of FY 2011-12.

Thus, interest on allowable loans (other than WCL) for SLDC business works out to Rs. 0.28 crore as given in Table 3.6 below.

**Table 3.6: Interest Charges (other than WCL) for SLDC Business of PSTCL****(Rs. crore)**

Sr. No.	Particulars	Loans as on April 1, 2011	Receipt of Loan during FY 2011-12	Repayment of Loan during FY 2011-12	Loans as on March 31, 2012	Amount of Interest
1	2	3	4	5	6	7
1	As per data furnished in ARR (other than WCL)	1.45	30.00	-	31.45	0.33
2	Approved by the Commission (other than WCL)	1.45	25.00	-	26.45	0.28

**3.7.3 Capitalisation of Interest Charges**

The Commission, as per past practice, capitalises the interest excluding interest on working capital, in the ratio of net works in progress to total capital expenditure. Based on this principle, the Commission approves capitalisation of interest of Rs. 15.78 crore for transmission business and Rs. 0.20 crore for SLDC business of PSTCL for FY 2011-12.

**3.7.4 Interest on Working Capital**

PSTCL has claimed interest on working capital of Rs. 25.07 crore for transmission business and Rs. 0.93 crore for SLDC business for FY 2011-12, as per norms specified in CERC (Terms and Conditions of Tariff) Regulations, 2009. PSTCL has calculated interest on working capital by applying Advance Rate of State Bank of India (which is equivalent of the SBI PLR used earlier) of 11.75% as on April 1, 2010 on the working capital requirement of Rs. 213.39 crore for transmission business and Rs. 7.92 crore for SLDC business.

Regulation 21 of PSERC Tariff Regulations stipulates that while determining the cost of transmission, the Commission shall be guided, as far as feasible, by the principles and methodologies specified by CERC. Accordingly, the Commission has re-calculated the working capital requirement as per norms specified in CERC (Terms and Conditions of Tariff) Regulations, 2009 based on the approved expenses of PSTCL, which works out to Rs. 131.66 crore for transmission business and Rs.4.71crore for SLDC business. By applying the above rate of interest, the Commission approves Rs. 15.47 crore as interest

on working capital for transmission business and Rs. 0.55 crore for SLDC business of PSTCL for FY 2011-12, as shown in Table 3.7 below:

**Table 3.7: Interest on Working Capital for PSTCL for FY 2011-12**  
(Rs. crore)

<b>Sr. No</b>	<b>Particulars</b>	<b>Approved for SLDC</b>	<b>Approved for Transmission</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1	Receivables equivalent to two months of fixed cost	3.89	78.02
2	Maintenance spares @ 15% of Operation and Maintenance expenses	0.53	34.48
3	Operation and Maintenance expenses for one month	0.29	19.16
<b>4</b>	<b>Total Working Capital</b>	<b>4.71</b>	<b>131.66</b>
5	Interest Rate	11.75%	11.75%
<b>6</b>	<b>Interest on Working Capital</b>	<b>0.55</b>	<b>15.47</b>

### 3.7.5 Diversion of Capital Funds

The Commission, in para 2.15.7 of the Tariff Order for PSPCL for FY 2011-12 has determined the interest of Rs. 240.40 crore to be disallowed for diversion of capital funds towards revenue purposes in FY 2009-10. The Commission retains its decision to make similar disallowance for PSTCL. For FY 2011-12, the share of PSTCL out of Rs. 240.40 Crore works out to Rs. 26.98 crore. This amount is further bifurcated between transmission and SLDC business in proportion to the approved Gross Fixed Assets of SLDC and transmission business as on April 1, 2011. Of the total amount of Rs. 26.98 crore, Rs. 11.22 crore is to the account of the PSTCL and the balance Rs. 15.76 crore is to the account of Government. The share of transmission business out of Rs. 26.98 crore works out to Rs. 11.19 crore and that of SLDC works out to Rs. 0.03 crore. Thus, Rs. 11.19 crore is disallowed from the approved interest charges for transmission business and Rs. 0.03 crore is disallowed from the approved interest charges for SLDC business. The approved interest charges for transmission business of PSTCL for FY 2011-12 are shown in Table 3.8 below:

**Table 3.8: Approved Interest Charges for Transmission Business for FY 2011-12  
(Rs. crore)**

Sr. No.	Particulars	Loans as on April 01, 2011	Receipt of Loans	Repayment of Loans	Loans as on March 31, 2012	Interest Approved by the Commission
1	2	3	4	5	6	7
1	Interest on Institutional Loans taken by the PSTCL	1159.11	600.00	139.59	1619.52	113.40
2	Interest on Working Capital Loans					15.47
<b>3</b>	<b>Total (1+2)</b>	<b>1159.11</b>	<b>600.00</b>	<b>139.59</b>	<b>1619.52</b>	<b>128.87</b>
4	Less Capitalisation					15.78
<b>5</b>	<b>Net Interest Charges</b>					<b>113.09</b>
6	Less: Interest disallowed on account of Diversion of Capital Funds ( For Transmission Business– Rs. 11.19 crore & GoP – Rs. 15.71 crore)					26.90
<b>7</b>	<b>Interest Allowed (5-6)</b>					<b>86.19</b>

Similarly, the approved interest charges for SLDC business of PSTCL for FY 2011-12 are shown in Table 3.9 below:

**Table 3.9: Approved Interest Charges for SLDC Business for FY 2011-12**

**(Rs. crore)**

Sr. No.	Particulars	Loans as on April 01, 2011	Receipt of Loans	Repayment of Loans	Loans as on March 31, 2012	Interest Approved by the Commission
1	2	3	4	5	6	7
1	Interest on Institutional Loans taken by PSTCL	1.45	25.00	-	26.45	0.28
2	Interest on Working Capital Loans					0.55
<b>3</b>	<b>Total (1+2)</b>	<b>1.45</b>	<b>25.00</b>	<b>-</b>	<b>26.45</b>	<b>0.83</b>
4	Less Capitalisation					0.20
<b>5</b>	<b>Net Interest Charges</b>					<b>0.63</b>
6	Less: Interest disallowed on account of Diversion of Capital Funds (For SLDC Business – Rs. 0.03 crore and GoP- Rs.0.05 crore)					0.08
<b>7</b>	<b>Interest Allowed (5-6)</b>					<b>0.55</b>

**Accordingly, the Commission allows interest charges of Rs. 86.74 (86.19 + 0.55) crore to PSTCL for FY 2011-12.**

As discussed in para 2.8.5 of this Tariff Order, GoP is liable to pay Rs. 14.47 crore to PSTCL on account of diversion of capital funds for revenue purposes in FY 2010-11. Besides Rs. 15.76 crore is payable by GoP on the same account in FY 2011-12. Thus, the GoP is liable to pay a total amount of Rs. 30.23 (14.47 + 15.76) crore to PSTCL up to FY 2011-12.

### **3.8 Return on Equity**

PSTCL has claimed a Return on Equity of Rs. 77.14 crore for the transmission business for FY 2011-12 at a rate of 15.5% (pre-tax) grossed up by the tax rate of 33.99%, as per CERC (Terms and Conditions of Tariff) Regulations, 2009. However, in the past, the Commission has been allowing the RoE of 14%. Accordingly, the Commission finds no justification for allowing RoE at a higher rate and thus allows RoE of Rs. 45.99 crore @ 14% of the total equity of Rs. 328.50 crore of PSTCL. For SLDC, PSTCL has not claimed any RoE, and hence, no ROE has been allowed.

**Hence, the Commission approves Rs. 45.99 crore as Return on Equity for transmission business of PSTCL for FY 2011-12.**

### **3.9 ULDC Charges**

In ARR Petition for FY 2011-12, PSTCL has claimed ULDC Charges of Rs. 10 crore for FY 2011-12 for its SLDC business. Subsequently, PSTCL has revised these charges to Rs. 18.91 crore on account of revision in ULDC rates by the Order of CERC dated 18.03.2011. The Commission allows the same to be included in SLDC ARR for FY 2011-12.

### **3.10 Non-Tariff Income**

PSTCL has projected a Non-Tariff Income of Rs. 9.76 crore in respect of transmission business in FY 2011-12. For SLDC, PSTCL has not projected any Non-Tariff Income.

**The Commission approves Rs. 9.76 Crore as Non-Tariff Income of transmission business of PSTCL for FY 2011-12.**

### 3.11 Annual Revenue Requirement

The Summary of the Annual Revenue Requirement for SLDC business and transmission business of PSTCL for FY 2011-12 is shown in Table 3.10 below:

**Table 3.10: Annual Revenue Requirement for SLDC and Transmission Business of PSTCL for FY 2011-12**

(Rs. crore)

Particulars	For SLDC		For Transmission	
	Projection by PSTCL for FY 2011-12	Approved by the Commission in Tariff Order for FY 2011-12	Projection by PSTCL for FY 2011-12	Approved by the Commission in Tariff Order for FY 2011-12
1	2	3	4	5
Employee Cost	4.54	3.32	268.31	162.82
R&M Expenses	4.86	0.17	97.15	55.89
A&G Expenses	5.43	0.03	21.44	11.17
Depreciation	0.67	0.37	151.80	115.80
Interest Charges	1.26	0.55	163.12	86.19
Return on Equity	-	-	77.14	45.99
ULDC Charges	10.00	18.91	-	-
<b>Total Revenue Requirement</b>	<b>26.76</b>	<b>23.35</b>	<b>778.96</b>	<b>477.86</b>
Less: Non-Tariff Income	-	-	9.76	9.76
<b>Net Revenue Requirement</b>	<b>26.76</b>	<b>23.35</b>	<b>769.19</b>	<b>468.10</b>
Gap/(Surplus) for FY 2010-11	-	-	54.89	-
<b>Cumulative Revenue Requirement</b>	<b>26.76</b>	<b>23.35</b>	<b>824.08</b>	<b>468.10</b>

**Thus, the Commission approves the Annual Revenue Requirement of Rs. 468.10 crore for transmission business and Rs. 23.35 crore for SLDC business of PSTCL for FY 2011-12.**

The summary of the Annual Revenue Requirement of PSTCL and SLDC as a whole for FY 2011-12 is shown in Table 3.11 below:

**Table 3.11: Annual Revenue Requirement for PSTCL and SLDC for FY 2011-12****(Rs. crore)**

<b>Particulars</b>	<b>Projection by PSTCL for FY 2011-12</b>	<b>Approved by the Commission in Tariff Order for FY 2011-12</b>
<b>1</b>	<b>2</b>	<b>3</b>
Employee Cost	272.85	166.14
R&M Expenses	102.02	56.06
A&G Expenses	26.87	11.20
Depreciation	152.47	116.17
Interest Charges	164.38	86.74
Return on Equity	77.14	45.99
ULDC Charges	10.00	18.91
<b>Total Revenue Requirement</b>	<b>805.72</b>	<b>501.21</b>
Less: Non-Tariff Income	9.76	9.76
<b>Net Revenue Requirement</b>	<b>795.95</b>	<b>491.45</b>
Gap/(Surplus) for FY 2010-11	54.89	-
<b>Cumulative Revenue Requirement</b>	<b>850.84</b>	<b>491.45</b>

The ARR of Rs. 491.45 crore for PSTCL for FY 2011-12 is the transmission charges payable by PSPCL during FY 2011-12. Hence this amount is carried forward to para 4.16 of PSPCL Tariff Order for FY 2011-12 dated May 9, 2011.





# Chapter 4

## Determination of Transmission and SLDC Charges

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### 4.1 Annual Revenue Requirement

The Commission has determined the ARR for PSTCL for FY 2011-12 at Rs. 491.45 crore. Out of Rs. 491.45 crore, the ARR approved for transmission business is Rs. 468.10 crore and the ARR approved for SLDC business of PSTCL is Rs. 23.35 crore.

### 4.2 Determination of Transmission Tariff

4.2.1 The PSERC (Terms and Conditions for Determination of Tariff) Regulations, 2005 specify that transmission tariff will have the following components:

- i) SLDC Operation Charges,
- ii) Reactive Energy Charges,
- iii) Charges for use of network.

4.2.2 The Commission has approved the ARR of SLDC business for FY 2011-12 as Rs. 23.35 crore against Rs. 26.76 crore projected by PSTCL, as shown in Table 3.10 of this Tariff Order. The transmission system capacity projected by PSTCL for FY 2011-12 is 7990.18 MW, which is the sum of installed capacity in MW of all generating stations connected to the transmission system of PSTCL and the contracted capacities in MW of other long-term transactions to be handled by the transmission system of PSTCL. Since, there is only one Distribution Licensee in the State of Punjab, thus whole of the SLDC charges will be borne by PSPCL, which works out to Rs. 1.95 crore per month. **Thus the Commission approves SLDC charges at the rate of RS. 1.95 crore per month for PSPCL and for long term open access customers at the rate of Rs. 2435.28 /MW/Month of the contracted capacity.**

4.2.3 The reactive energy charges raised by NRLDC on PSTCL will be directly recoverable by PSTCL from PSPCL.

4.2.4 The ARR for transmission business of PSTCL for FY 2011-12 has been approved at Rs. 468.10 crore, as shown in Table 3.10 of this Tariff Order. The Commission, for determining charges for use of the transmission network,

has considered the fact that the ARR of transmission business of PSTCL is 'fixed' in nature. Hence the Commission decides that the entire ARR for transmission business of PSTCL be recovered through a demand charge based on the transmission system capacity. The transmission system capacity projected by PSTCL for FY 2011-12 is 7990.18 MW as stated in para 4.2.2 above.

**The Commission determines the transmission charges at the rate of Rs. 39.01 crore per month payable by PSPCL.**

#### **4.3 Determination of Open Access Transmission Charges**

4.3.1 As per the Open Access Regulations notified by the Commission, the Open Access Transmission Charges for long-term Open Access during FY 2011-12 are computed in Table 4.1 below:

**Table 4.1: Long-Term Open Access Transmission Charges for FY 2011-12**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Figures</b>
1	Annual Revenue Requirement (ARR) (Rs. crore)	468.10
2	Transmission System Capacity (MW)	7990.18
3	Transmission Tariff (Rs/MW/Month)	48820
4	Long Term Open Access Charges (Rs./MW/Month) of the contracted capacity (=33.33% of Sr. No. 3)	16273
5	Transmission Charges based on energy transmission of 43672 MU (Paise/Unit)	11

4.3.2 As per clause 16(1)(c) of PSERC (Open Access) Regulations, the Open Access Transmission Charges for Short-Term Open Access will be 20% of the full transmission charges, as at serial no 5 of Table 4.1, thus, the Short-Term Open Access Transmission charges are determined as 2.2 paise per unit.

#### **4.4 Amount payable by GoP to PSTCL on account of interest disallowed for diversion of capital funds towards revenue purposes**

As discussed in para 2.8.5 of this Tariff Order, GoP is liable to pay Rs. 14.47 crore to PSTCL on account of interest on diverted capital funds for revenue purposes in FY 2010-11. Besides, as discussed in para 3.7.5, Rs. 15.76 crore is payable by GoP on the same account in FY 2011-12. Thus, the GoP is liable to pay a total amount of Rs. 30.23 (14.47 + 15.76) crore to PSTCL up to FY 2011-12.

#### **4.5 Payment Security Mechanism for payment of Inter-State Transmission Charges**

4.5.1 Central Electricity Regulatory Commission has notified CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 which are likely to be made effective from July 01, 2011. As per Clause 11(2) of these Regulations:

*“The bill for the use of the ISTS shall be raised by the CTU on the concerned Designated ISTS Customers. The SEB/STU may recover the transmission charges for the use of the ISTS from the distribution companies, generators and bulk customers connected to the transmission system owned by the SEB/STU/intrastate transmission licensee in a manner approved by the Appropriate Commission.”*

Further, the definition of Designated ISTS Customers as per the above said Regulations is as under:

*“Designated ISTS Customers (‘DIC’s) means the users of any segments/elements of the ISTS and shall include all generators, state transmission utilities, SEBs or load serving entities directly connected to the ISTS including Bulk Consumer and any other entity/person;”*

4.5.2 Further, as per clause 15(1)(d) of the above said Regulations, the CTU (PGCIL) has drafted a procedure of billing and collection of charges by the PGCIL on behalf of Transmission Licensees (Central) and redistribution of the same (including amounts over or under collected), which is yet to be approved by CERC.

4.5.3 PSTCL, in its letter dated March 16, 2011, has requested the Commission to pass suitable instructions in the Tariff Order of PSTCL and PSPCL for FY 2011-12, for smooth implementation of the provisions of CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010. In this regard, the Commission directs PSTCL to make back to back arrangements with PSPCL to collect Inter-State transmission charges as per the approved procedure by CERC, with effect from the commencement of applicability of the above mentioned Regulations. Further, any rebate availed or surcharge

paid by PSTCL while paying Inter-State transmission charges to PGCIL under such back to back arrangement shall be passed on to PSPCL.

**4.6 Date of Effect**

The Commission notes that the ARR Petition of PSTCL for FY 2011-12 covers the complete financial year. The recovery of transmission charges, therefore, has to be such that the total revenue requirement of PSTCL for FY 2011-12 is recovered in this period.

**The Commission, therefore, decides to make the transmission charges applicable from April 01, 2011 and the charges determined above shall remain operative till March 31, 2012.**

**This Order is signed and issued by the Punjab State Electricity Regulatory Commission on this, the 9<sup>th</sup> day of May, 2011.**

Date: May 9, 2011

Place: CHANDIGARH

Sd/-  
(GURINDERJIT SINGH)  
MEMBER

Sd/-  
(VIRINDER SINGH)  
MEMBER

Sd/-  
(ROMILA DUBEY)  
CHAIRPERSON

CERTIFIED  
Sd/-  
SECRETARY  
PUNJAB STATE ELECTRICITY REGULATORY COMMISSION  
CHANDIGARH